Active Transportation for State Employees in the Capital Region

Recommendations to the Health in All Policies Task Force

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GLOSSARY

AQI	Air Quality Index
CalHR	California Department of Human Resources
CalPERS	California Public Employees' Retirement System
CalSTRS	California State Teachers' Retirement System
CDPH	California Department of Public Health
DGS	Department of General Services
DHCS	Department of Health Care Services
EEC	Sacramento's East End Complex
GHG	Greenhouse Gas
GSA	Greater Sacramento Area
HiAP	Health in All Policies
IRS	Internal Revenue Service
PHI	Public Health Institute
RT	Sacramento Regional Transit District
SACOG	Sacramento Area Council of Government
SEIU Local 1000	Service Employees International Union Local 1000
SMAQMD	Sacramento Metropolitan Air Quality Management District
SRBS	Sacramento Regional Bike Share
YCTD	Yolo County Transportation District
ZNE	Zero-Net-Energy

EXECUTIVE SUMMARY

The Health in All Policies Task Force Active Transportation Action Plan was developed in 2014 to increase opportunities for safe and accessible active transportation to school, work, and other essential destinations. The authors of the following report, a team of graduate students enrolled in the University of California, Berkeley Goldman School of Public Policy, were asked to recommend policies to advance Objective 5 of the Action Plan: to "promote active transportation as an attractive and viable form of commuting for employees at and visitors to state agencies."

California state employees in the Sacramento region are more likely to drive an automobile to work each day than they are to use any other form of transportation. This dependence on automobiles contributes to two significant challenges facing California: a changing climate caused in part by automobile emissions, and negative health outcomes caused in part by inactivity. **Encouraging active transportation provides an opportunity to address both climate change and health, by reducing the greenhouse gas emissions of the state's workforce and at the same time improving employee health through physical activity.**

The Sacramento region has numerous characteristics that make it well-suited for active transportation, but sprawl and a inadequate public transit system are substantial barriers to reducing car commuting. A review of transportation and health literature demonstrates that there is no single solution, no "silver bullet," for increasing active transportation; changing commuter behavior requires a system of complementary changes that alter a community's commuter culture. This report presents four opportunities for the state to adopt policies that will effectively increase rates of active transportation among employees in the Sacramento region:

Recommendations:

1) Capitalize on the forthcoming Sacramento regional bike share program to make bike share a well-used, accessible resource for active commuting by state employees.
2) Update commuter benefits and facilities to incentivize employees to bike more and drive less.
3) Expand and standardize employee wellness programs based on best practices gleaned from existing and currently piloted programs.
4) Concentrate state buildings in and around the downtown Sacramento area in order to create efficient employee commute patterns.

INTRODUCTION

The California Health in All Policies (HiAP) Task Force seeks to increase safe and accessible active transportation throughout California. Established in 2010 by executive order, the HiAP Task Force is facilitated in partnership by the California Department of Public Health (CDPH) and the Public Health Institute (PHI), and brings together 22 state agencies, departments, and offices. The HiAP Task Force aims to "us[e] collaborative approaches to improve population health by embedding health considerations into decision-making processes across a broad array of sectors."[i]

Specifically, this graduate student project aims to support the 2014 HiAP Task Force Active Transportation Action Plan. The Action Plan was developed by the HiAP Task Force to increase opportunities for safe and accessible active transportation to school, work, and other essential destinations, as well as a recreational activity for all people. The authors of this report, a team of graduate students enrolled in the University of California, Berkeley Goldman School of Public Policy, were asked to recommend policies to advance Objective 5 of the Action Plan: to "promote active transportation as an attractive and viable form of commuting for employees at and visitors to state agencies."

The analysis in this report is limited to a focus on state employees working in the Sacramento region, which make up approximately 31 percent of the total state workforce.[1] [ii] Sacramento, and to a greater extent California, is often seen as a model for innovative policy endeavors; any successful active transportation initiative in the capital region stands to have significant reverberations throughout California and the country.

BACKGROUND: WHY ACTIVE TRANSPORTATION?

Active Transportation Defined

Active transportation refers to "…all forms of human-powered transportation, such as walking and cycling." The Health in All Policies Task Force Active Transportation Action Plan defines it as "…walking, biking, rolling[2], or public transportation[3]" as a means to get to "school, work, [or] other essential destinations, and as a recreational activity for all people."

Promoting active transportation provides a "win-win" opportunity for addressing two of California's highest priorities: climate change mitigation and promoting a healthier population.

[1] This figure includes all full-time, part-time, and intermittent employees working in Sacramento, Yolo, El Dorado, Nevada, Placer, Sutter, and Yuba Counties.
[2] Rolling in this context refers to the use of wheelchairs, skateboards, roller blades and skates, and scooters.
[3] Public transit is generally considered a form of active transportation because it can--and often does--include walking or biking on at least one end of the trip. Overall the health impacts of this mode, however, are less than the greenhouse gas reduction.

Transportation has a powerful impact on health. Well-designed transportation policies and programs in conjunction with smart infrastructure investment development can lead to far-reaching reductions in traffic-related health risks from air and noise pollution and injury. Additionally, cycling and walking, on their own or as part of a public transit trip, can greatly enhance physical activity levels and help prevent a range of chronic diseases including heart disease, some cancers and type 2 diabetes.

The transportation sector also is a major source of greenhouse gas (GHGs) emissions, and thus an important focus of climate change mitigation. Climate change is expected to increase temperatures, change precipitation patterns, increase the frequency and severity of extreme weather events, and increase sea-level rise—all of which will have significant impacts on Californians.[vi] California is the twelfth largest emitter worldwide of GHGs and California's transportation sector is the single largest source (38 percent), with personal passenger vehicles accounting for 79 percent of that sector's GHG emissions.[vii] In the Sacramento region, nearly 70 percent of residents report driving alone for most or all of their regular daily trips.[viii]

The High Costs of Physical Inactivity

Today, more than half of Californians are overweight or obese, and a 2003 study estimated that chronic diseases cost the state $26.9 billion to treat and $106.2 billion in lost productivity annually.[iii] In 2005, the direct and indirect annual costs to California of inactivity were estimated to be more than $13.3 billion annually.[iv] Among state employees, 22.4 percent of employee healthcare expenditures were attributable to diseases that could be prevented with changes to diet and physical activity.[v]

The state has set various goals to significantly reduce emissions in the future.[ix] Most notably, Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, requires a sharp reduction in greenhouse gas emissions by 2020. Reducing automobile dependency leads to fewer GHG emissions and less pollution overall and has been identified as a main strategy for achieving the AB 32 goals.[x]

The interactions between climate change and health are numerous. Not only will climate change have significant health impacts, but climate mitigation and adaption will also influence health and health inequities. Promoting active transportation is a powerful opportunity to achieve the State's greenhouse gas emissions reduction goals and to improve public health.

PROFILE OF THE SACRAMENTO REGION

Sacramento Snapshot

The Sacramento region has numerous characteristics that make it well suited for active transportation, but sprawl and a poor public transit system are substantial barriers to reducing car commuting. While state employees here are more likely than their peers to bike or take public transit to work, over 60 percent drive to work each day. Air quality has worsened in the last decade, and more than half of Sacramento County's emissions are attributed to transportation.

This report's analysis and recommendations are limited to the Greater Sacramento Area (GSA), also sometimes referred to as the greater capital region, where approximately 69,000 of the 225,162 (31 percent) California state employees work.[xi] The GSA is comprised of seven California counties (Sacramento, Yolo, El Dorado, Placer, Sutter, Yuba, and Nevada) and one in Nevada (Douglas).[4] This section describes the characteristics of the GSA as they relate to the favorability of active transportation, including climate, terrain, sprawl, public transportation, parking availability, and the environment.

Favorable Region

The GSA has relatively favorable climate and infrastructure for active transportation. Its climate is characterized as a Mediterranean climate, with warm-to-hot summers and mild-to-cool, wet winters. Sacramento has an average temperature of 61°F and receives about 18.51 inches of rainfall per year, although the region has seen considerably less moisture in recent years. In 2014, fewer than 20 percent of the days had rainfall, and most were trace amounts of rain.[xii] Sacramento also ranks as one of the sunniest cities in the US with about 78 percent of days per year forecasted as sunny. Notably, the more eastern portions of the GSA have more varied climate. The area is primarily flat grassland surrounded by farmlands.

According to walkscore.com, the more densely populated hub of Sacramento has a relatively high bike score (68 out of 100), a lower than average walk score (43), and a low transit score (33).[5] For a comparison, San Francisco has a bike score of 70, a walk score of 84, and a transit score of 80; Los Angeles has scores of 54, 64, and 50, respectively. Walkscore.com ranks Sacramento as the 7th most bike-able large city in the United States. While many people in the region are car-dependent, the GSA includes some of the nation's most bike-friendly areas, including the city of Davis (home to many state employees working in the capital region), which has a bike score of 89.

Employee and Office Dispersion

As depicted in Figure 1, state employees in the GSA are primarily concentrated in central and southern Sacramento, but there are also large concentrations in neighboring suburbs such as Elk Grove, Arden-Arcade, Citrus Heights, and Rancho Cordova. As the map shows, employees are well dispersed around the city of Sacramento. Figure 1's blue areas represent employees who live particularly far, including some who live as far as eighty miles from the state Capitol, from the San Francisco Bay Area in the south and the city of Durham in the north.

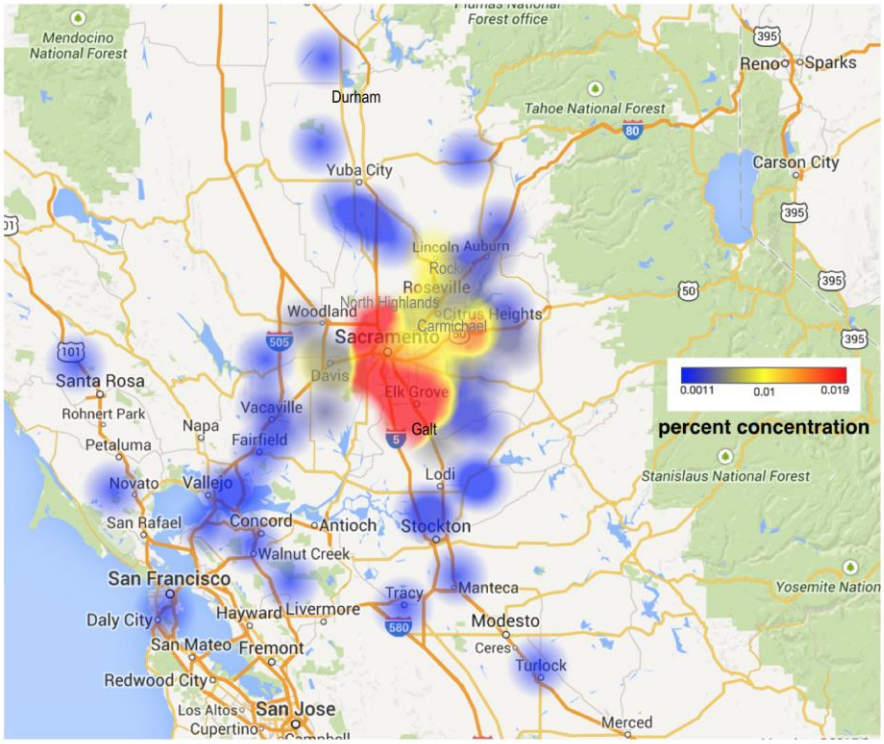
The GSA has experienced considerable population and housing growth in the past few decades. According to a 2009 survey, the greatest concentrations of state employees live in areas that include: (1) Elk Grove and Galt (27.8 percent), and (2) Carmichael, North Highlands, Citrus

[4] In certain cases, data covers only the Sacramento Area Council of Government (SACOG) region, which includes the aforementioned counties except for Nevada and Douglas.

[5] Ratings are based on several criteria: Walk score: distance to amenities, population density, block length, intersection density, other road metrics; Bike Score: available bike infrastructure, terrain, destination and road connectivity, amount of bike commuters; Transit Score: frequency, type of routes, and distance to nearest transit stop.

Heights, Roseville, and Rocklin (23.7 percent).[xiii] Approximately 65 percent of employees in the capital region live more than 10 miles away from their worksite, with fewer than 6 percent living in the central downtown area.[xiv6] State office buildings are similarly disbursed, with 17.2 million net square feet of office space spread out over 500 locations across the GSA.

Figure 1: CalSTRS Employee Dispersion



Source: Original, created with data from the Fix50 initiative

Commuter Behavior

While driving alone is the most popular commute mode among state employees living in the capital region (45.1 percent), they are more likely to use public transportation than their non-state employee peers.[xv 7]

More than one quarter of the Sacramento Area Council of Government (SACOG) region workforce works in a different county from where they live.[xvi] Table 1 in Appendix B demonstrates the trend of commuter patterns in the SACOG region from 2009 to 2013.[xvii]

[6] Figure 6 and Table 4 in Appendix B further demonstrate the geographical dispersion of Sacramento state employees and the net square footage per zone within a 15-mile radius centered on Downtown Sacramento. As of 2007, the GSA includes more than 17.2 million square feet of office space (in more than 500 locations), about 13 million of which are located within a 5-mile radius of the Capitol.

[7] See Tables 1, 2, and 3 in Appendix B for commute mode information, and how Sacramento state employees fare in comparison to the region at large.

According to the 2013 American Communities Survey, the average commute to work time for all modes of commuting in Sacramento County is about 26 minutes. Table 2 in Appendix B demonstrates the trend of commuter travel times in the SACOG region from 2009 to 2013,[xviii] and Table 5 demonstrates the trend of the amount of vehicles owned per household in the SACOG region from 2009 to 2013.[xix]

Public Transit

State employees in the GSA use public transit more often than the regional average; however, public transit accessibility is limited. More than 12 public transit providers service the GSA, but the vast majority of the SACOG area (excluding Sutter, Yuba, and El Dorado) is poorly serviced by public transit.[xx] Of the 3,767 state employee public transit commuters that responded to the *State Your Mode* survey in 2009, approximately two-thirds use Sacramento Regional Transit, which consists of bus and light rail options. Figure 10 in Appendix B demonstrates the distribution of regions in which people live within half a mile from a public transit stop.

Parking

Most state employees travel to work in a vehicle and have little difficulty finding affordable parking options. Of the 45 percent of state employees who drive to work alone, 25 percent park their vehicles in state-owned facilities, 33 percent in city-owned facilities, and 33 percent in privately-owned facilities.[xxi] Notably, more than 10 percent park in free street parking areas. 58.3 percent of state employees in the capital region who drive alone park on-site or within one block of their worksite. More than 17 percent of single car commuters pay more than $100 a month for parking; however, more than 58 percent pay less than $50 a month.

The Environment

Since 2003, air pollution in the Sacramento region has worsened according to the Air Quality Index (AQI) of Sacramento.[xxii] [8] The Sacramento region emitted an estimated 24.6 million tons of CO_2 in 2006, 62 percent of which came from the Sacramento County. 55 percent of Sacramento County's emissions were from transportation.[xxiii]

METHODOLOGY

As previously discussed, increasing active transportation is a key strategy for both improving public health as well as reducing Greenhouse Gas (GHG) emissions. Accordingly, the following recommendations address, to varying degrees, ways in which the state can encourage active transportation. Our recommendations are grounded in knowledge gained from interviews with

[8] See Figure 8 in Appendix B.

over 20 officials from various California state and local agencies, as well as a review of the literature covering issues of health, transportation, energy, and labor.

In addition to providing detailed suggestions for how the state may consider implementing these recommendations, we discuss and analyze the recommendations in light of their potential for changing both individual and organizational behavior towards active transportation. To that end, the discussion of each recommendation includes commentary centered on the following criteria:

- **Effectiveness:** To what extent does this recommendation increase active transportation among state employees in the Greater Sacramento Area?

- **Efficiency:** How do the costs compare to current state expenditures aimed at health and environment initiatives? What benefits do the recommendations offer in terms of cost savings?

- **Feasibility:** What challenges are anticipated when considering implementation of this recommendation? Factors here include political challenges, administrative challenges, and projected timelines required to realize change.

Along with details that must be considered when designing and implementing the recommendation, we include examples of best practices from already-existing programs, where possible.

COMPLEMENTARY POLICIES: THE KEY TO SUCCESS

Changing behavior is never easy, and will require a shift in the environment and culture in state government and in the Sacramento region. A variety of literature demonstrates that to increase active commuting, there is no single solution; changing commuter behavior requires a system of complementary changes that alter a community's commuter culture. One meta-analysis of over 300 robust empirical studies concluded that to significantly increase active transportation, a region must undertake a comprehensive and multi-tiered approach that reasonably alters, "community design, infrastructure availability [and quality], programming, pricing, [education programs], and combined strategies."[xxiv]

For this reason, our recommendations encompass ways the state can use services, education, incentives, and larger-scale planning solutions to change commuter behavior. The state is more likely to succeed in increasing active transportation among state employees if all policies implemented in tandem.

RECOMMENDATIONS

Capitalize on the Forthcoming Sacramento Regional Bike Share Program

Background

Local officials in Sacramento are currently preparing to join cities such as San Francisco, New York, and Washington, D.C. in offering an alternative form of transportation via a large-scale public bike share system. All of the top ten most bike-friendly cities in the U.S. either have or are in the process of developing a large-scale bike share program, including Sacramento, ranked seventh.[xxv] As described in a 2013 business plan produced by the Sacramento Metropolitan Air Quality Management District (SMAQMD), the system is intended to serve Sacramento, West Sacramento, and Davis, with plans for 88 stations and a total of 616 bicycles.[xxvi] Initial plans for the Sacramento Regional Bike Share (SRBS) have been shaped by bike share systems implemented in the U.S. over the last decade.

What is a Bike Share System?

A bike share system is a service in which users rent a specialized commuter bicycle for a short period of time to ride a relatively short distance. Users pick up the bicycle at a self-serve bike share station and may return it at the station of their choice, making it convenient to use the bikes for one-way, point-to-point trips. The bikes are also used as a last-mile solution to get users from a public transit stop to their final destinations.

Bike share memberships typically include annual, monthly, weekly, and daily options, which allow the user an unlimited number of trips within the membership period. Self-serve bike share stations, strategically located throughout the metropolitan area, provide secure, proprietary locking systems and payment kiosks. The bikes are designed to be easy to ride, with low, step-through frames, easily adjustable seats, and low gears.

Currently, several state agencies and departments have small fleets of bikes available for their employees to use during the workday; SRBS will significantly expand bicycle access beyond these agencies and allow all employees to participate, as well as tourists and visitors to state office buildings.

Current State of Affairs: Planning and Stakeholder Coordination

A bike share system in the Sacramento region was first discussed in 2013 as a way to reduce traffic and promote healthy transportation.[xxvii] The Air Quality District took the initial steps of applying for funding and navigating government regulatory hurdles, in addition to writing the system's blueprint: the 2013 "Bike Share Business Plan." SACOG has since taken on a leading role and is in the process of convening representatives of the numerous local and regional

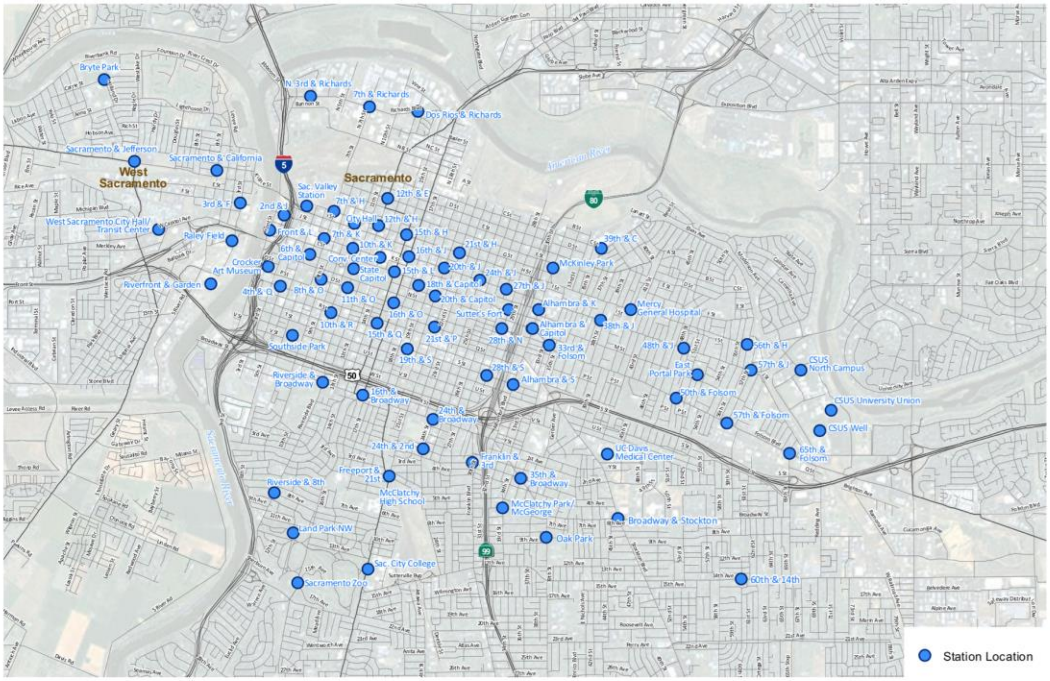
agencies working to bring the bike share system to Sacramento.[9] Many of these agencies have signed letters of commitment but have yet to agree to formal contracts specifying the terms of the bike share partnership.

The next major step is the drafting and signing of a multi-agency agreement to set clear goals for bike share and to specify contributions by various agencies, with sustainability of the system as an overarching objective. According to the lead bike share planner at SACOG, the system is currently on track to open to the public sometime in 2016.

The State's Opportunity

To date, officials from the Department of General Services (DGS) have had preliminary discussions with the Air District regarding the SRBS, but have yet to formalize future coordination efforts. While the SRBS is still in the planning stage, implementation is not far off. Our analysis revealed numerous benefits to the state involved in this engaging now while the program is still in the development phase. As the region's largest employer, state government is well positioned to shape the system and help ensure it is accessible and well used by state employees.

Figure 2: Tentative Bike Share Station Planning Map for Sacramento



Source: Bike Share Business Plan

[9] Local and regional agencies named in the 2013 blueprint include the Sacramento Regional Transit District (RT), Sacramento Area Council of Governments (SACOG), the City of Sacramento, the Capitol Corridor Joint Powers Authority, the City of West Sacramento, the City of Davis, U.C. Davis, the Yolo County Transportation District (YCTD), and the Yolo-Solano Air Quality Management District

While the state may not have control of the bike share system, its arrival could do more to change the commuting culture in the capital region than any actions taken directly by the state. If bike kiosks are out of reach for state employees, however, the opportunity to increase bike commuting to and from state buildings could be missed.

Recommendation

1) The state should carefully consider the role it can play to ensure that the SRBS becomes a well-used, accessible resource for active commuting by state employees. To ensure the state's engagement is strategic and synchronized, **a single individual or agency/department should be designated as a liaison to oversee coordination with the SRBS**. DGS has been the department most involved to date and is likely the department best equipped to navigate the needed interagency cooperation. Most important is that the person appointed to this position has a strong grasp of what is feasible within different agencies and has the authority to make decisions on behalf of the state. Making this a senior-level position would send a strong signal that the department wants to be a serious partner in this effort.

This liaison would oversee the state's involvement with the bike share system by:

a) Attending the SRBS partner meetings as the bike share's goals are laid out over the next six months and helping the SRBS navigate initial hurdles.
b) Working with DGS and other agencies to ensure that bike share kiosks are permitted on or near state property at convenient locations near office buildings, employees' homes, and public transit stops.
c) Once the interagency agreement is in place and membership plan details are established, negotiating a state employee discount on bike share memberships, possibly in exchange for leased space for bike docks in front of state buildings.
d) Promoting the program among state employees, targeting these efforts to populations most likely to respond who are likely to appreciate the relative safety of bike share bicycles.[xxviii]

Discussion

Appointing a liaison to oversee promotion and coordination will only increase the system's effectiveness in changing employee transportation behavior. The addition of over 600 bikes to the Sacramento region alone is likely to aid the state's goal of increasing active transportation to and from state buildings, as bicycle access is a significant determinant of whether or not someone is likely to use a bike as a mode of transportation.[xxix] Other American cities with bike share systems saw a shift in behavior resulting from the arrival of a bike share program. For example, in Washington D.C. 80 percent of Capital Bike Share users stating that they cycle more often now than they did before joining the Capital Bike Share program.[xxx]

Ensuring that kiosks are visibly and safely located near state offices will be a critical determinant of how much the bike share is used by employees. Placing kiosks near public transit stops, residential centers, and places of employment have been shown to be important factors in successful bike share systems.[xxxi] Kiosk locations that require users to cross a busy street from a

transit stop, for instance, may seem inconvenient to hurried commuters, making the system seem infeasible and reducing use.

Conducting and reviewing evaluations of the bike share system will allow the state to predict which of its employees are likely to be "early adopters" and which ones will be likely to respond to promotion of the program as a means of commuting. For example, women are seen as a "low-hanging fruit," that is, those most likely to respond to incentives to start biking. However, a top concern for many women is safety and the risk of personal injury resulting from bicycling; in 2009, women accounted for just 24 percent of all U.S bike trips. Together, this suggests that the state could promote the program in a way that emphasizes the safety benefits of bike share programs, which have been shown to be safer to cyclists than riding their own bikes.[xxxii] This is likely a result of the inclusion of lights on bike share bikes and their weight, which makes them slower.

Finally, the SRBS's capital costs have been estimated to exceed $4 million, but the costs of the state championing the bike share program among its employees would be minimal in comparison. These costs would include the salary of the bike share liaison and potentially foregone revenue tied to parking spaces used up by bike share kiosks.

While carrying out this recommendation may not require much by way of resources, it may be difficult to motivate state leaders to devote time and energy to a locally controlled project whose timeline, and ultimate completion, is not guaranteed. Until the bike share system demonstrates it has solid financial backing, state leadership may be reluctant to divert time and resources towards an initiative that has already seen delays. Nonetheless, SRBS's planners indicate that they are eager to work with state government and believe the project would benefit from early engagement between SACOG and state leaders.

Commuter Benefits for a More Active Workforce

Background

One of the more direct ways an employer can encourage a particular mode of transportation is through commuter benefits and transportation-related facilities. In addition to maintaining parking facilities, California currently offers state employees three separate benefits related to commuting to and from work: vanpooling, automobile parking, and transit. Only one, the transit pass benefit, encourages active transportation by providing employees who use mass transit with a transit pass discount covering 75 percent of monthly costs, up to a total amount of $65 per month.[xxxiii]

Federal Commute Fringe Benefits

Under federal IRS rules, employers are permitted to provide their employees with tax-free subsidies to help lower the cost of their commutes, up to a certain limit. By excluding these fringe benefits from employees' gross income for the purposes of determining federal income taxes, employers have the ability to reimburse employees for commute costs without the

employee paying additional taxes on them. Many employers, including the state of California, present some—but not all—of these reimbursements as a prominent part of an employees' benefits package.

At the federal level, the IRS provides three categories of commuter fringe benefits:[xxxiv]

(1) $130 for qualified vanpooling or public transit (partly offered by the state),
(2) $250 for qualified parking (partly offered by the state), and
(3) $20 for qualified bike commuting (not offered by the state)

While the employer may determine the exact amount to be reimbursed for each benefit, only the amounts provided above are tax-deductible to the employee. For example, if an employee received $150 in public transit subsidies, $20 would be subject to income taxes. Because the transit benefit provided by the state of California is beneath the $130 federal ceiling, it is fully tax-deductible to state employees.

In 2008, Congress passed the *Bicycle Commuter Benefits Act*, making bike commute reimbursements the latest addition to the IRS's series of commuter fringe benefits. Under IRS rules, an employee may only receive a tax-free bike benefit in a month in which he or she "…regularly use[s] the bicycle for a substantial portion of the travel between the employee's residence and place of employment" and receives no other transportation fringe benefit.[xxxv] Though multi-modal commuting is increasingly common, an employee may receive only one transportation benefit in a given month. As an employer, the State does not currently offer state employees the biking commuting fringe benefit.

Local Level Commute Fringe Benefits

While the federal fringe benefits have existed since 1984 (with the bike benefit added 24 years later), they are optional; employers may choose whether or not to reimburse employees. At the local level, cities and regions in California, New York, and Washington DC have enacted mandatory ordinances regarding commuter fringe benefits. For example, in the City of Berkeley, an ordinance was passed in 2009 that required every employer with more than 10 employees to provide a commute benefits program to encourage the use of vanpooling, public transit, and biking.[xxxvi] Consistent with IRS rules, the Berkeley bike fringe benefit also does not allow employees to mix biking with public transit benefits.

Other Commuter Benefits

Apart from transportation reimbursements, other commuter benefits that influence commute mode include: (1) automobile parking, (2) bicycle parking, (3) showers, and (4) locker rooms. The first of these promotes vehicle transportation, and the last three encourage active transportation in that they provide the requisite facilities to make biking (or walking) to work a more attractive and feasible option, particularly for those employees that are not already engaged in cycling.

Based on interviews and data collection, the current landscape of these benefits is skewed toward promoting vehicle transportation over active transportation. Compared to the price of parking

from private and city-owned parking garages/lots in the Downtown Sacramento area, state-owned parking is significantly cheaper. Currently, there is no standardized information regarding the amount and availability of bicycle parking, showers, and locker rooms for state employees in the Sacramento region. However, the Department of General Services (DGS) is currently working on standardizing this information to get a better picture of what their facility and infrastructure needs are in terms of promoting active transportation. About 33 percent of the buildings have reported information regarding their available facilities, and of the larger buildings, it appears that each has at least one showering unit for males and another for females (with access to lockers).

Recommendation

2) The state should update and expand its commuter benefits to include:

a) Adding a Commuter Bike Benefit
The state government should add a bike commuter benefit to its employee fringe benefits offerings. While up to $20 would be tax-free to the employee, the state would need to decide on the exact amount offered. A change in the benefits structure this substantial would require some action on the part of the Governor or Government Operations Agency and would likely be administered by CalHR, if not by the individual agencies themselves. In selecting the appropriate amount for a bike commuter benefit, the state should consider the amount necessary to influence commuting behavior (see discussion section below), the size of the bike subsidy relevant to other benefits, and the total costs borne by the state.

Estimating the total costs of offering the bike benefit may be challenging given the difficulty in projecting how many employees would choose to use it. The state might consider offsetting these costs by bringing parking fees in state-owned facilities in line with the Sacramento region market rate. Doing so would remove incentives in the current benefits system which encourage driving over active commuting.

b) Adding More Showers and Lockers
The state should ensure its employees have access to sufficient amenities necessary for biking to and from work. Adding shower and locker room facilities has been shown to increase rates of biking to and from work.[xxxvii] Sacramento already has a well-developed bike lane network and the downtown area is bike friendly, but in order to enhance bicycle commuting, multiple layers of policy are needed. Currently, DGS is developing standards for showers and lockers in State buildings along with other facilities.

c) Employee Discount for the New Regional Bike Share
As previously discussed in recommendation 1c, state employees should receive discounted membership rates to encourage use of the forthcoming Sacramento Regional Bike Share system.

d) Continue to Standardize Bike Facilities
DGS is currently taking stock of bicycle-related facilities in state office buildings in Sacramento. By centralizing information related to the number and locations of bike

racks, type of racks, and safety features, as well as the showers and lockers, the state is taking important first steps to prioritize these issues. Only when the state has an accurate picture of the availability of these facilities can it make strategic plans to fill gaps in the system.[10]

Discussion

Due to the new and understudied nature of the bike benefit, indicators of effectiveness are difficult to assess; however, there is abundant literature that indicates that employer-provided parking that is free or heavily-subsidized compared to the regional market rate for parking significantly increases solo driving, and the removal or reduction of these parking subsidies significantly increases the amount of people who shift to other modes.[xxxviii]

Although studies have shown that financial incentives effectively influence transportation behavior, research on what amount is necessary to bring about this change is lacking. A meta-analysis of studies on the impact of financial incentives on travel mode found that while financial incentives are underused for encouraging healthier commute behaviors, they could be effective and promising approaches to nudge people toward active commuting.[xxxix] One study from France found that offering employees a $0.43 per mile compensation for biking more than doubled the amount of cycling commuters from the eligible pool; however, they also discovered that the effectiveness of bike benefits decreases substantially when employers provide free or subsidized parking options.[xl]

According to the 2009 *State Your Mode* survey, when asked to pick the top three mechanisms that would encourage vehicle commuters to use more active modes of transportation, more than 10 percent of the responders signaled that a monthly cash subsidy for using alternative commute modes (i.e., biking and walking) would make them change their commute behaviors. Research also indicates that providing facilities such as bike racks, showers, and locker rooms significantly increases the number of people who shift to a more active mode of commuting.[xli] A 2012 study from Washington, DC indicated that each facility type (shower, locker, protected bike rack) yields a significant growth in active commuting; however, the association is even stronger when all of these facilities are present at the same time.[xlii]

To fund these new endeavors, the state could potentially look to two sources: (1) a gradual increase in the price of parking with the goal of eventually reaching the market rate of parking in the Sacramento region, and (2) collaboration with entities that have a vested interest in improving employee health (e.g., healthcare providers through wellness program incentives). For city-owned lots, monthly parking costs range from $45 to $175 with the vast majority of lot spaces costing more than $105 per month. City-owned parking garages have monthly costs that range from $115 to $185.[xliii] For the 53,000 state-owned parking spaces, the monthly costs range from $37 to $85.[xliv] This gap demonstrates that state parking is effectively subsidized compared to the local market rate for parking. Moving away from the current car-centric incentive system is likely to have a significant effect on employee transportation modes, particularly among those employees more sensitive to price changes.

[10] These goals are set out under Objective 5 of the HiAP Active Transportation Action Plan (2014).

Employee Wellness

Background

Over the past several decades, there has been rapid growth in the prevalence of employer-sponsored wellness programs;[xlv,11] in 2009, 92 percent of employers with 200 or more employees offered some form of wellness program.[xlvi] The rise of workplace wellness programs highlights the concern over the rising rates of chronic (mainly preventable) disease, including but not limited to obesity-related illnesses such as diabetes and cardiovascular disease. In addition to employers' concerns over their workforce's health and wellbeing, most have recognized a need to reduce the substantial costs associated with providing healthcare to an ailing population, both during their working careers and throughout their retirements. With the health benefits of active transportation well documented, employee wellness can be used as a vehicle to educate and promote walking and biking.

While the components that make up wellness programs vary across employers, common elements include health screenings, smoking cessation programs, weight loss programs, and nutrition education. Current data shows that active transportation is a component often not specifically addressed in wellness programs, although exercise more generally is promoted.

Current State of Affairs: Employee Health and Employee Wellness Programs

The state currently has a number of employee wellness programs; these programs are managed at a departmental level, leaving significant variation in quality, programming, and access across (and oftentimes even within) state departments and agencies. In light of this heterogeneity, there exists an opportunity to improve quality and increase participation rates through the standardization and innovation of wellness programs.

The state is currently piloting a wellness program aimed at increasing employee participation through a unique approach involving labor and management. A partnership between several coordinating partners, the *Healthier U* pilot wellness project is underway at the California Department of Public Health (CDPH) and Department of Health Care Services (DHCS) employees in Sacramento's East End Complex (EEC) with funding largely provided by Kaiser Permanente Community Benefits.[12]

Key components of *Healthier U* include: health screenings; an online program where participants track their physical activity and fruit/vegetable consumption, forming teams to compete with peers; a stairwell campaign to encourage employee's physical activity throughout the day; "Sneaker Fridays" where employees are encouraged to wear comfortable shoes that enable them to be active throughout the day and during their breaks; and a bike fleet program consisting of six department-owned bikes that employees may borrow for use between meetings, local errands,

[11] As defined in the RAND Institute's *A review of the US workplace wellness market* (2012), wellness programs are broadly defined as "...an employment-based activity or employer-sponsored benefit aimed at promoting health-related behaviors (primary prevention or health promotion) and disease management (secondary prevention)."

[12] Partners include: the California Department of Human Resources (CalHR), the California Department of Public Health (CDPH), the California Department of Health Care Services (DHCS), and Service Employees International Union Local 1000 (SEIU Local 1000).

or exercise during break periods. Although the *Healthier U* pilot is still in progress, initial analysis shows higher participation rates than other piloted programs (see Table 6 in Appendix B), a result that partners attribute to the meaningful collaboration between labor and management, as manifest by the inclusion of the union partner.[13]

Recommendation:

3) To communicate with employees about the benefits of active transportation, the state should expand and standardize employee wellness programs based on evidence-based best practices gleaned from existing and currently piloted programs. Key elements should include:

a) *Educate employees about the environmental and health impacts of their commutes:* The state should develop a tool to support employees in adopting a lifestyle approach by building on the existing *Healthier U* online portal. This tool lets employees log on to track their physical activity and engage in friendly competition with their colleagues, motivating employees to exercise and have fun in the process. To incorporate active transportation, the state should allow employees to track their transportation modes, providing information about the varied benefits of their increased activity (e.g., miles traveled, gas saved, money saved, carbon offset, and health points earned for various exercise intensity levels). The state might look to resources such as www.worldcommute.com for guidance in developing this tool.

b) *Increase wellness program participation*: Wellness programs have the potential to be a powerful tool to improve employee health, but they will only see results if employees are participating. Making automatic enrollment in a department's wellness program during the new employee onboarding process will maximize employee's awareness of these programs as well as their involvement.

c) *Standardize wellness programs across state government*: Centralizing a standardized program and building on labor union support will signal the state's commitment to a healthy lifestyle, including active transportation.

Discussion

Active transportation has a number of characteristics that make it a complementary element of existing employee wellness programs. Research has shown that "time and access are the most commonly reported barriers to physical activity."[xlvii] Additionally, self-efficacy—the belief that one is able to be successful (in this case, at exercising)—is a predictor of sustained physical activity,[xlviii] and "short, acute bouts" of exercise have been shown to boost self-efficacy.[xlix] The

[13] *The UC Berkeley Labor Center is in the process of conducting an assessment of the pilot program (due out in December 2015) that the state should refer to in concert with implementing this report's following recommendation.*

literature also points to the benefits of a focus on a lifestyle approach, that is, encouraging employees to find opportunities in everyday life to incorporate being active.[l]

By emphasizing active transportation, the state will encourage a lifestyle approach responsive to time, access, and self-efficacy challenges. Active transportation reduces the need for dedicated blocks of time to exercise or an expensive gym membership. When being active is a part of everyday tasks, exercise can be less intimidating for employees who may struggle with self-efficacy in exercise. Educating employees on the appeal of active transportation through this lens, along with automatic enrollment in the wellness program, providing information at the time of new employee onboarding process, and including a tool to track active transportation will lead employees to consider active transportation as an essential part of a healthy lifestyle.[14] This holds promise as an effective strategy for inspiring lasting change in employee behavior.

These recommendations will cost the state increased administrative resources (likely through CalHR and/or CalPERS); however, good wellness programs are designed based on evidence-based practices and create an organizational culture that celebrates healthy habits. Studies have shown returns on investments as high as three to six dollars in savings for every dollar invested.[li] These calculations often include employer savings on medical costs (via payouts as part of employer-sponsored health care) as well as savings associated with employee absenteeism. Some uncertainty over the expected return from wellness programs results from the fact that most programs are multifaceted and non-standardized, making it hard to determine which elements are effective prevention measures, and research has not kept up with their rapid expansion.

While this could lead to overstating their impact, the state should note that the most recent findings in late 2014 conclude "that comprehensive workplace programs (those that adopt best practice principles and create cultures of health) do exert a positive influence on certain health behaviors and biometric measures, and they also produce positive financial outcomes important to employers (e.g., reductions in health care utilization and productivity improvements)."[lii]

The main challenge in ensuring the effectiveness of a wellness program effort aimed at increasing active transportation will be the risk of low employee participation rates. Even the most well-designed program will do little to foster active transportation if employees are not interested in participating. Historically, wellness programs suffer from participation rates under 20 percent, and oftentimes, healthier employees are the ones most likely to participate.[liii] In addition to considering automatic enrollment during the new employee onboarding process, the state should look to the results of the *Healthier U* evaluation due out in the next year by the UC Berkeley Labor Center.

The recommendation to implement at least some level of standardization to a future wellness program seeks to address these issues by creating a culture of wellness and active transportation in the state whereby it becomes "the norm" to participate in the wellness program. Recognizing that different departments may have different cultures and challenges when it comes to implementing this recommendation, state officials will likely determine the optimal places to

[14] While not exactly analogous, this model has proven effective in increasing participation in employer-sponsored retirement programs, see (Choi et al. 2005)

target these efforts. In doing so, it should consider a centralized team or department that can help in wellness program design, implementation, and management across the many departments at the state level. CalPERS or CalHR would be appropriate candidates for this role, along with the creation of a wellness liaison in each department.

Improved Worksite Locations for Shorter Commute Distances

Background

While access to bicycles, benefits, and wellness programs are likely to impact many employees' transportation decisions, planning, community design, and health behavior studies consistently find that the way communities are built influences whether people drive, take transit, walk or bicycle to get where they are going.[liv,lv,lvi] Many factors determine whether it is possible to walk or bike to destinations near home or work. The best researched elements are proximity—having destinations nearby to walk to—and connectivity— safe and direct ways to make the trip. People are more likely to commute to work on foot or via bicycle if they live in a city center, live close to a non-residential building, live very close to a grocery or drug store, have good access to public transportation, and if work is centrally located.[lvii]

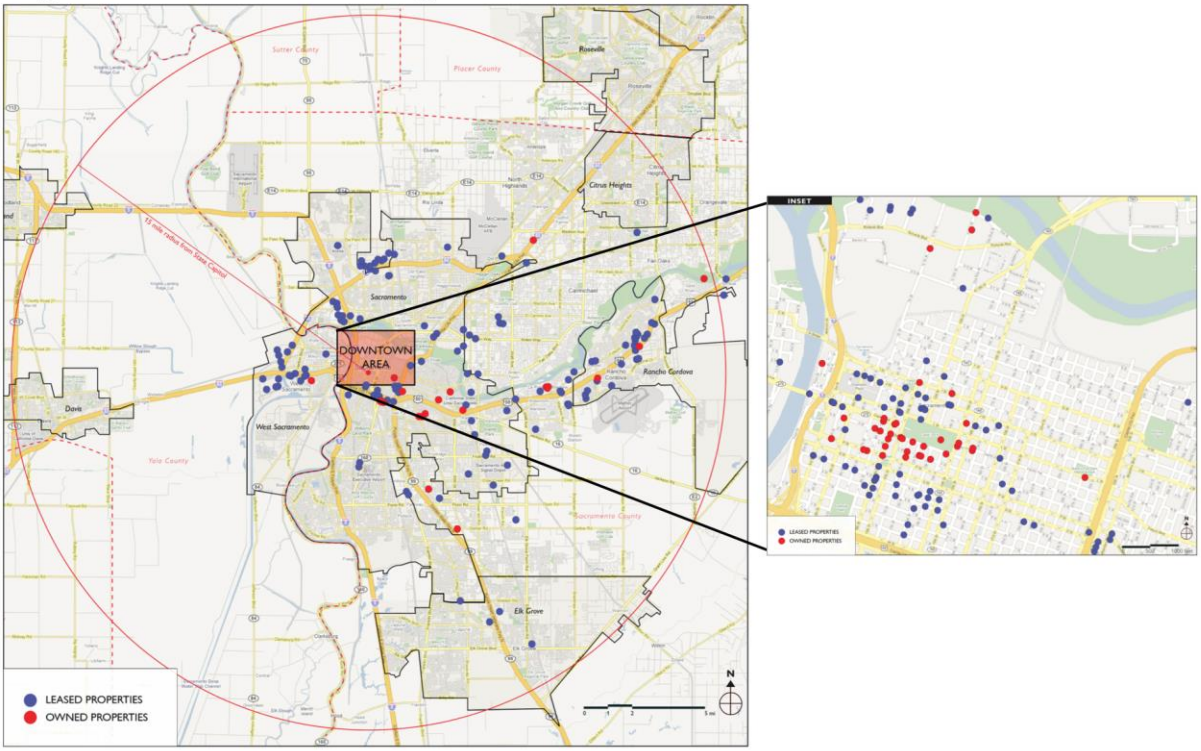
Recognizing that many of these elements are outside the direct control of the State, one opportunity to influence commute patterns is to locate state owned and leased building in locations that are consistent with the above. Further, centrally locating state owned and leased buildings is consistent with Sec. 4 Section 6504.1, which identifies the State Planning Priorities including promoting infill develop and encouraging efficient development patterns. [lviii]

Figure 3 illustrates that approximately half of the buildings in the Sacramento area are located in downtown Sacramento, which is consistent with the key factors—proximity and connectivity—to encourage active transportation. The other half of state owned and leased building are distribute throughout the region, mostly along highway corridors. Many of these buildings along the highway are located in large office parks often surrounded by free or cheap parking, and with limited amenities within walking and biking distance. The blue dots in Figure 3 represent leased properties while the red dots indicating state-owned properties; 58 percent of state buildings are owned by the state and 42 percent are leased.[lix]

When an agency has a need for office space, the Department of General Services Real Estate Services Division compiles profiles of potential worksite locations from which the agency can choose based on currently available properties. While there are a variety of factors that are considered when purchasing or leasing state buildings (e.g., cost, amenities), currently there is no measure or metric for greenhouse gas emissions related to employee commute considered in building site selection. However, one important stipulation, set out in California Government Code §15808.1 and California Health & Safety Code §50093.5, requires that state-owned and

leased office facilities be located on existing public transit corridors and be within a quarter-mile of a public transit stop with at- or above-average levels of service for the transit system.[15]

Figure 3: State Office Buildings in the Greater Sacramento Area



Source: Sacramento Region State Office Planning Guide, 2008

Currently, state employees' residences are spread throughout the region as well. Figure 9 shows that approximately 65 percent of employees report living more than 10 miles from their worksite. However, Figure 9 also shows that the highest density of employee residences is located in and around the downtown area in Sacramento. It is unrealistic to expect that 100 percent of employees will chose to live in city centers within biking and walking distance of work, however centrally locating state owned and leased building in city centers, where there is robust public transportation, provides employees the choice to actively commute and may encourage future employees to locate centrally.

Finally, an important new policy impacting the construction of state buildings in the capital region is California's movement towards "zero-net-energy" (ZNE) buildings. Under Governor Brown's Executive Order B-18-12, all newly constructed state buildings and major renovations that begin design after 2025 must meet the ZNE facilities standard.[lx] In addition, the state must adapt existing buildings to achieve ZNE for 50 percent of all state-owned square footage by 2025. The current ZNE definition proposed by the California Energy Commission does not consider

[15] While at face value these requirements appear to incorporate public transportation opportunity, lack of quality of service specification renders them insufficient in encouraging government officials to prioritize public transportation access when locating state buildings.

transportation energy emissions produced by commuting to and from a ZNE building. This omission creates a perverse incentive by which builders, desiring a larger building footprint on which to place solar panels, may be more likely to locate buildings in the suburbs, where land is less expensive.

What is a "zero-net-energy" (ZNE) building?

"A ZNE Code Building is one where the net of the amount of energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building, at the level of a single "project" seeking development entitlements and building code permits, measured using the California Energy Commission's Time Dependent Valuation (TDV) metric. A ZNE Code Building meets an Energy Use Intensity value designated in the Building Energy Efficiency Standards by building type and climate zone that reflect best practices for highly efficient buildings." ~p. 36

California Energy Commission
2013 Integrated Policy Report

Recommendation

4) To shorten employee commute distances, make active transportation more feasible for the state's workforce, and ensure that the state is consistent with the State Planning Priorities, planners should strive to concentrate future buildings in and around the downtown Sacramento area. The following steps would allow the state to achieve this goal and increase rates of active transportation:

a) Incorporate GHG emissions tied to transportation as part of the DGS Real Estate Services Division leasing process. The existing requirement that buildings be located within a quarter mile of a public transit stop is insufficient to ensure buildings allow for active transportation modes. The most direct way to reduce sprawl and decrease driving to state buildings is to require that DGS develop a model to calculate predicted transportation-related GHG emissions for new buildings. These estimates would be provided to the agency deciding on its new property, as well as the Governor's office.

By including this procedure, all agencies would have to consider the impact of their office location selection on the state's broader GHG reduction goals.

b) Add transportation emissions to the state's definition of ZNE Building. For the ZNE policy to address all of a building's environmental impact, its definition should include the indirect emissions and energy consumption caused by employees' commuting.[lxi] Even if ZNE reduces the significant amount of energy directly used in buildings, if these building are located far from residential areas or in areas lacking robust and efficient public transportation, induced energy caused by commuting by car may surpass the reductions in energy use achieved by a ZNE policy. A definition that takes transportation impacts into account will require policymakers to consider building locations as well as access to transit, bicycle, or pedestrian paths.

Discussion

According to a 2009 employee survey, one of the top three reasons state workers report they drive alone to work is that "anything else takes too much time,"[lxii,16] showing the importance of reducing employee commute times by shortening the distance between work site and workers' residences. Concentrating employee jobs into downtown areas may lead to more transit use, walking to work, and decreased vehicle use.[lxiii] Additionally, concentrating state owned and leased buildings in the downtown corridor would support the State's Planning Priorities.

Unfortunately, moving towards the concentration of state buildings in the downtown area has numerous challenges. A large public investment is needed to concentrate state buildings to the downtown area because the price of land is higher in the central area than the suburban areas[lxiv] and infill development is generally more expensive than building in less densely developed areas.[lxv] Without a thorough cost analysis, the true price of this shift will remain unknown; additionally, although it will be challenging to find space to construct new buildings, there are ample opportunities for renovating old infrastructures, utilizing empty private business sites, and building on vacant lots.[lxvi]

One of the most difficult challenges in choosing the appropriate location for state buildings stems from the fact that DGS and each agency has its own interest for the location, often disregarding the impact and potential for active transportation. This leads to considering many competing priorities in choosing the location, which may overshadow importance of transportation.

In altering the definition of ZNE building, promoters of active transportation must overcome the skepticism among the developers and promoters of ZNE policy who have traditionally not focused on transportation-related emissions. However, according to Environmental Building News,[lxvii] commuting by office workers accounts for the consumption of 30 percent more energy than the building itself uses for an average office building in the United States. By adopting a narrow definition of ZNE, the state risks incentivizing future sprawl in an effort to achieve energy efficiency, suggesting this policy could be in opposition to the goals of active transportation.

ANALYSIS

Complementary Policies: How Do They Compare?

While each of the four preceding recommendations alone have the potential to make small changes to the active transportation landscape in the Greater Sacramento Area, a multi-layered approach will ensure the maximum impact. With that said, there are tradeoffs (e.g., in terms of implementation timeline: immediate vs. more long-term) within each recommendation that different agencies and individuals will judge differently. In addition to addressing the different elements of creating a culture that is more centered around active transportation, the recommendations vary in the extent to which they can be expected to address the following key areas:

[16] The other two reasons are "No reasonable transit option" and "Need my car at work for personal business"

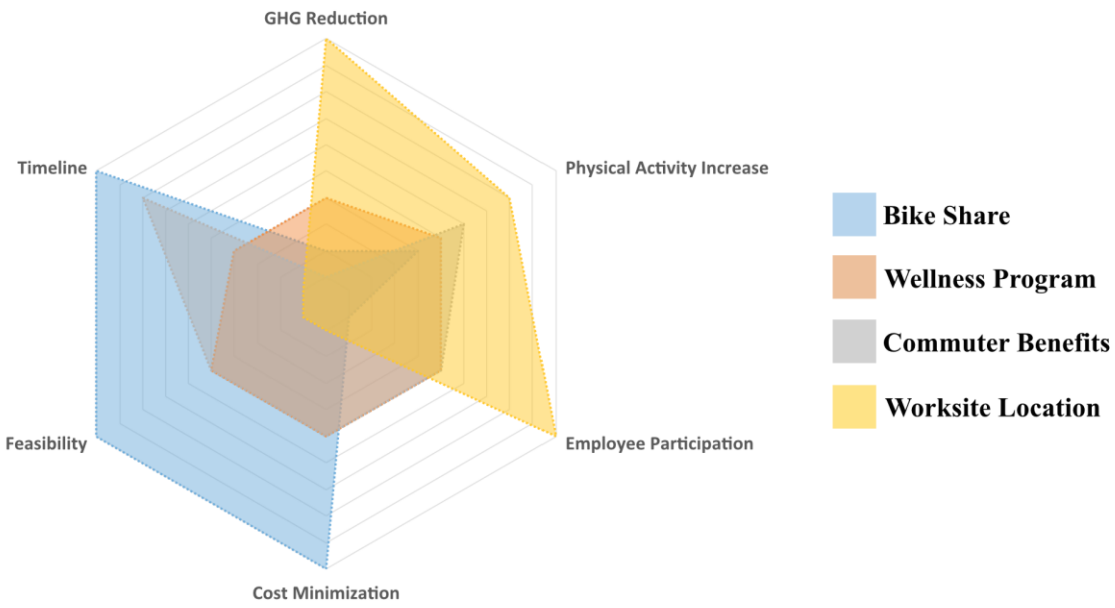
a. GHG Reduction
b. Increase in Physical Activity
c. Employee Participation
d. Cost Minimization
e. Feasibility
f. Implementation Timeline

The decision to evaluate the recommendations along these dimensions reflects the important aims of active transportation itself (i.e., GHG reduction & increasing physical activity levels) as well as the realities that the state will have to balance when deciding if and how to move forward with implementation (i.e., employee participation, minimizing costs, political feasibility, and the implementation timeline).

The following series of radar charts provide a visual tool with which to evaluate the anticipated impact of the recommendations along the different dimensions. It is important to note that the outer edges represent the ideal situation for each characteristic (i.e., maximal GHG reduction, maximal increase in physical activity, maximal employee participation, minimum cost, most feasible, and most immediate implementation timeline). Accordingly, the size of the areas represented by each recommendation can be interpreted to show the rough relative impact of each recommendation against the others, according to our best judgment based a reading of the literature. Some notable takeaways include the following:

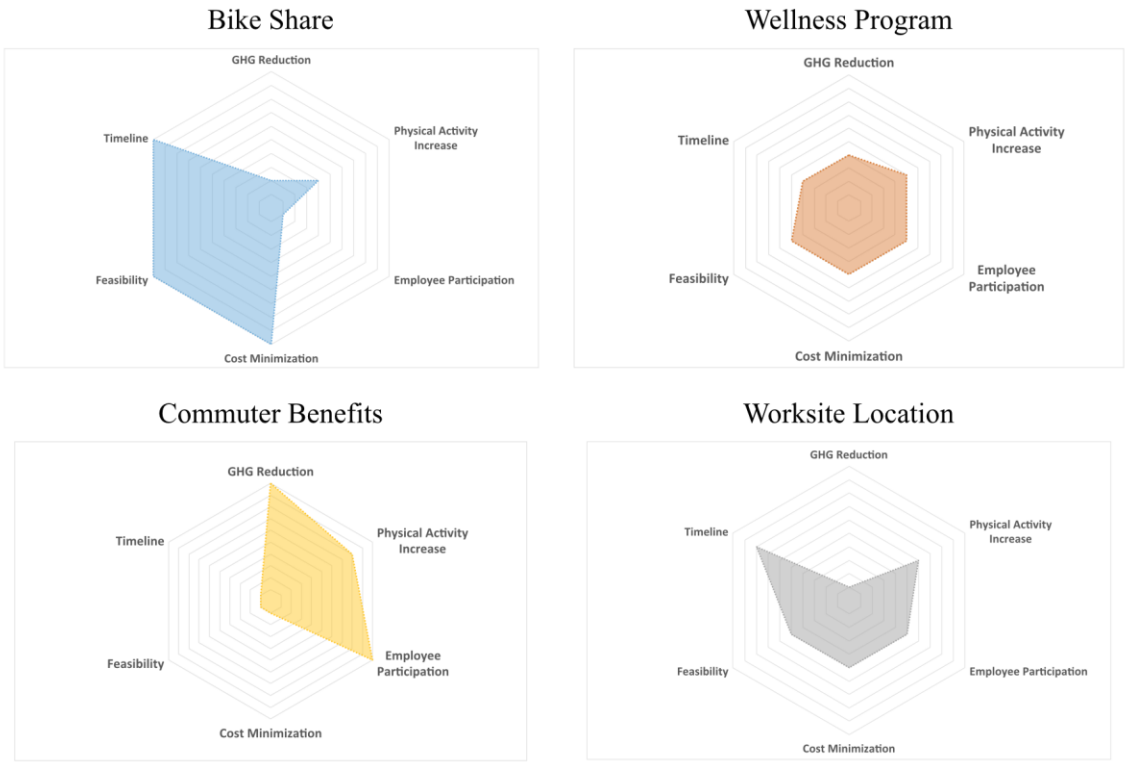
- The bike share is heavily skewed towards ideal implementation timeline, feasibility, and cost minimization, which underscores the recommendation that the state capitalize on this opportunity. While it may not have the largest effects on employee participation, appointing a liaison is relatively low-cost to the state and will do much in the immediate future to promote a bike culture.
- In contrast, the worksite location recommendation is heavily skewed in favor of GHG reduction, physical activity increase, and employee participation. It is also the most costly and long-term recommendation, but this measure will be the most effective overall at changing the structure of commuting.
- The wellness program and commuter benefits are the most well-balanced recommendations along these dimensions. While their mid-level ratings are partly a result of the uncertainty in knowing how well utilized they will be, their balance also speaks to their supporting role in increasing active transportation, along with infrastructure, urban design, and resources that will support such a lifestyle shift.

Figure 4: Radar Chart for the Comparison of the Recommendations



Source: Original

Figure 5: Radar Chart for the Comparison of the Recommendations



Source: Original

MILLENIALS AND BROADER WORKFORCE IMPLICATIONS

If the state is committed to increasing active transportation, the necessity of looking to comprehensive and multi-tiered solutions is highlighted by the changing trends of millennials (people born between 1983 and 2000). According to a 2014 report by the U.S. PIRG Education Fund, millennials drive less, use more public transit, bike more, walk more, and want to live in areas where "driving is an option, not a necessity."[lxviii] Car ownership is also not as much of a status symbol as it was for previous youth generations.

Millennials are much more likely than previous generations to be concerned about the negative impact of car reliance on the environment as well as for future generations. They have much greener attitudes toward transportation than the previous generation, but their significantly different commuting behaviors are also explained by changes in the economic landscape, socioeconomic opportunities, technology, pricing of competing transportation modes, lifestyle preferences, and policies and campaigns that have created more barriers for driving or owning a personal vehicle.

Recruiting a high caliber workforce is critical to addressing the challenges facing the state of California in the years to come. With approximately 40 percent of state employees reaching the

current average retirement age (60) in the next eight years, state leaders considering future workforce needs would be remiss to ignore the implications of these generational shifts.[17] Failing to invest in larger-scale, comprehensive strategies to support and promote active transportation now—when the future of the workforce favors walking, biking, and public transit—could represent a costly missed opportunity. Millennials have entered the workforce and demonstrated their interest in active transportation habits, and having the ability to actively commute to work is likely to be seen favorably as they consider employment opportunities in the future. Promoting healthier, more environmentally friendly modes of transportation could be an important element of this recruitment strategy.

[17] These figures were calculated by using the average age of retirement for CalPERS active state members (60), and the most recent age-demographic data from the 2013 Annual Census of Employees in State Civil Service to predict the number of state employees that will retire in the next 8 years.

APPENDIX A: A "Bike Rack" of Additional Solutions

Additional Policies to Increase Active Transportation

There are numerous opportunities for the state to encourage active transportation among its employees that go beyond the primary recommendations within this report. Our research was limited by a number of factors; given more time, we would have liked to explored the additional avenues outlined below.

Overall, we found a lack of standardized, readily-available data concerning state employees and their transportation habits. An important first step towards prioritizing active transportation habits would be providing DGS with additional resources to conduct more regular commuter surveys, ideally annually or biannually. Surveying all employees and taking steps to increase response rates would also improve the data's validity, as the currently survey data are based on a small sample of employees.

The following ideas arose through interviews with state and local officials or were presented in the literature. They are included here because: 1) they are wholly distinct from this report's primary recommendations or infeasible for the state at this time due to low feasibility in the current political and fiscal environment or 2) because the recommendation is under the purview of local government. Our hope is that these ideas might spur additional research or inspire exploration by state sustainability and health officials.

Additional Ideas to Encourage Active Transportation

- Create a state office competition with rewards for offices that increases active commuting during a specified period, encouraging localized strategies to improve active commuting in ways that can inform the state about what methods work best in each region of the state.
- Organize a "rethink your commute" week in which state agencies work with employees individually and collectively to assess the relative expense and impact of their commute modes, opening discussion for interagency agreements on how to properly aid employees in making more active choices for commuting. Invite representatives from public transit providers, parking staff, experts on the topics of transportation, public health, and the environment, in addition to staff that is in charge of standardizing bike facilities.
- Make and distribute an active commuting guide map with bus and local regional transit timetables geared towards state employees.
- Introduce free commuter bus system for the state government employees.
- For state office buildings near gyms and fitness clubs, partner with these businesses to allow employees to use their showers rather than building shower facilities in state buildings.
- Improve work performance accountability mechanisms to permit increased telework opportunities. Provide work hour flexibility and/or telework incentives to employees who commute actively to work.

- Encourage offices to create bike bus groups (groups of co-workers that meet in centralized locations to bike to work as a group, increasing safety and encouraging potential bike commuters that may be concerned about the safety of biking to work).
- Post promotional material in office buildings informing employees about the health and environmental benefits of various active commuting modes.
- Encourage wellness program coordinators to distribute e-mails and other promotional/informational materials to all employees regardless of wellness program enrollment status.

Additional Ideas to Discourage Driving

- Shift resources away from parking facilities and employee parking subsidies.
- Consider applying differential parking prices for employees depending on their distance to work.
- Increase the inconvenience of automobile parking by transitioning to daily payment instead of monthly payment. Employees that pay a monthly fee might feel less inclined to commute more actively if they view their fixed monthly investment into parking as a system in which they should drive to work each day in order to get their money's worth
- Use current parking garage space for new bike parking, and lockers.
- Review Department of Motor Vehicles' regulations around California's driver's licenses; consider making licenses more expensive.

Additional Ideas for Collaboration with Local & Regional Government[lxix]

- Work with local officials to promote the following:
    - A denser urban core
    - More and improved bike and pedestrian infrastructure (sidewalks, bike lanes, crosswalks, bike parking near public transit stops, etc.)
    - Bus-only lanes (e.g., during rush hour) to improve the convenience and reliability of using public transportation.
    - Synchronize traffic signals with the flow of bicycle/bus traffic to increase time efficiency and safety of active transportation.
    - Additional streetscape amenities such as benches, lighting, and public art
- Work collaboratively with city public transit leaders to find ways to increase the reach, quality, and reliability of public transit options in the regions where state employees live.
- Decrease in the speed limit on roads where drivers share the road with cyclists to increase bike safety.

Additional Bike Share Recommendations

- Encourage the bike share to locate bike kiosks near parking lots just outside the downtown area, allowing employees who live far away and drive to work to park their cars and use bike share for the final leg of their commute
- Connect bike share memberships with transit pass cards, making it easier to administer and encouraging use.[lxx]

APPENDIX B: Tables and Figures

Table 1: Commute Modes for People in the GSA Workforce, 2009-2013

Means of transportation to work	2009	2010	2011	2012	2013
Car, truck, or van	87.73%	87.44%	87.25%	86.88%	87.02%
Drove alone	75.35%	75.19%	75.16%	75.16%	75.35%
Carpooled	12.43%	12.31%	12.10%	11.72%	11.61%
In 2-person carpool	9.63%	9.59%	9.57%	9.18%	9.06%
In 3-person carpool	1.66%	1.59%	1.52%	1.53%	1.50%
In 4-or-more person carpool	1.15%	1.05%	0.99%	1.02%	0.99%
Active Transportation	6.04%	6.17%	6.29%	6.43%	6.35%
Public transportation (excluding taxicab)	2.49%	2.58%	2.61%	2.60%	2.59%
Walked	2.11%	2.07%	2.05%	2.08%	2.02%
Bicycle	1.43%	1.52%	1.63%	1.75%	1.74%
Taxicab, motorcycle, or other means	1.24%	1.17%	1.18%	1.20%	1.11%
Worked at home	5.05%	5.18%	5.26%	5.55%	5.51%

Source: U.S. Census Data, Fact Finder

Table 2: Commute Modes for People in the GSA Workforce, 2009-2013

Travel to Work Time	2009	2010	2011	2012	2013
Less than 10 minutes	12.50%	12.33%	12.03%	12.17%	12.07%
10 to 14 minutes	14.09%	14.30%	14.28%	14.20%	14.25%
15 to 19 minutes	15.67%	15.69%	15.89%	15.92%	15.87%
20 to 24 minutes	15.28%	15.25%	15.08%	15.14%	15.15%
25 to 29 minutes	6.28%	6.29%	6.39%	6.50%	6.77%
30 to 34 minutes	14.43%	14.28%	14.64%	14.79%	14.59%
35 to 44 minutes	6.81%	6.64%	6.67%	6.67%	6.59%
45 to 59 minutes	7.50%	7.51%	7.42%	7.27%	7.23%
60 or more minutes	7.48%	7.72%	7.62%	7.37%	7.48%

Source: U.S. Census Data, Fact Finder

Table 3: Commute Modes for Sacramento State Employees, 2009

Commute Mode	Percent
Driving Alone	45.1%
Carpooling	14.5%
Vanpooling	2.5%
Public Transit	27.3%
Biking	4%
Walking	1.6%
Motorcycle / Moped	1.1%
Telework	1.1%
Different Method	1.7%

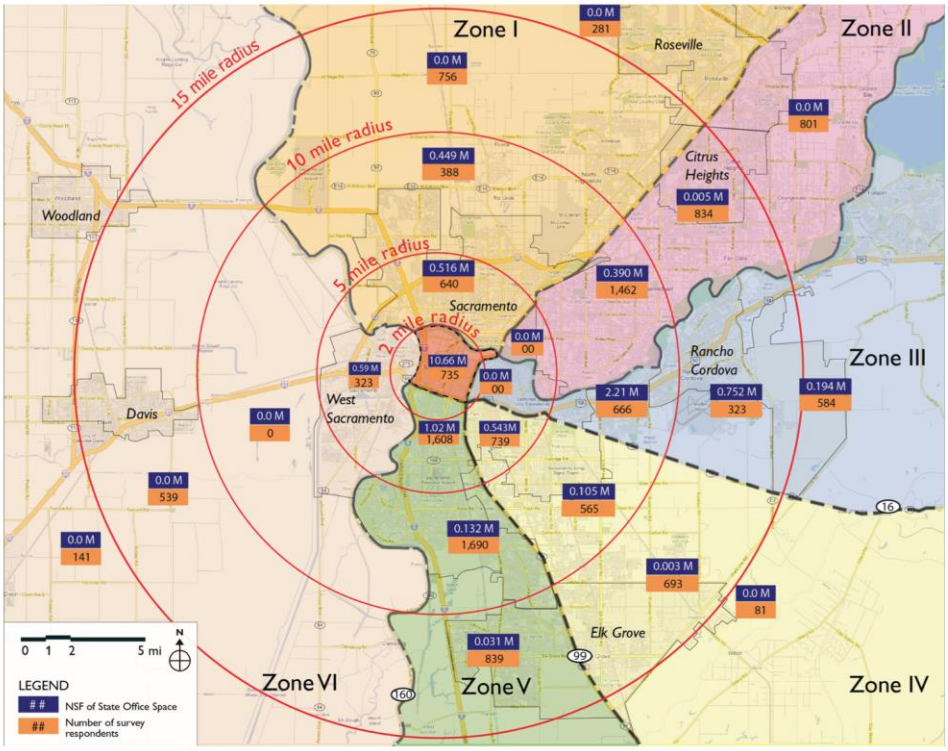
Source: State Your Mode: State Employee Commute Survey, 2009

Table 4: Sacramento State Employee Residence and Office Space Net Square Foot Data, 2008

Zone	Net Square Foot	Percent NSF	% of Employees	Home-to-Work Distance (%)			
				0-5 Miles	6-10 Miles	11-15 Miles	16+ Miles
Zone 0	10,550,776	61.3	5.3	100	0	0	0
Zone I	900,395	5.2	14.8	31	18.8	36.6	13.6
Zone II	390,082	2.3	22.2	0	47.2	26.9	25.9
Zone III	3,067,783	17.8	11.3	0	42.4	20.5	37.1
Zone IV	592,202	3.4	14.9	35.6	27.2	33.3	3.9
Zone V	1,183,059	6.9	24.4	25.7	49.7	24.6	0
Zone VI	516,389	3	7.2	32.2	0	53.7	14.1

Source: Sacramento Region State Office Planning Guide, 2008

Figure 6: Sacramento State Employee Residence Map



Source: Sacramento Region State Office Planning Guide, 2008

Table 5: Vehicle Ownership in the Sacramento Region, 2009-2013

Amount of Vehicles in Household	2009	2010	2011	2012	2013
No vehicle available	2.31%	2.37%	2.34%	2.41%	2.47%
1 vehicle available	18.80%	19.13%	19.47%	19.58%	19.85%
2 vehicles available	42.86%	42.70%	42.48%	42.75%	42.53%
3 or more vehicles available	36.03%	35.87%	35.65%	35.25%	35.16%

Source: U.S. Census Data, Fact Finder

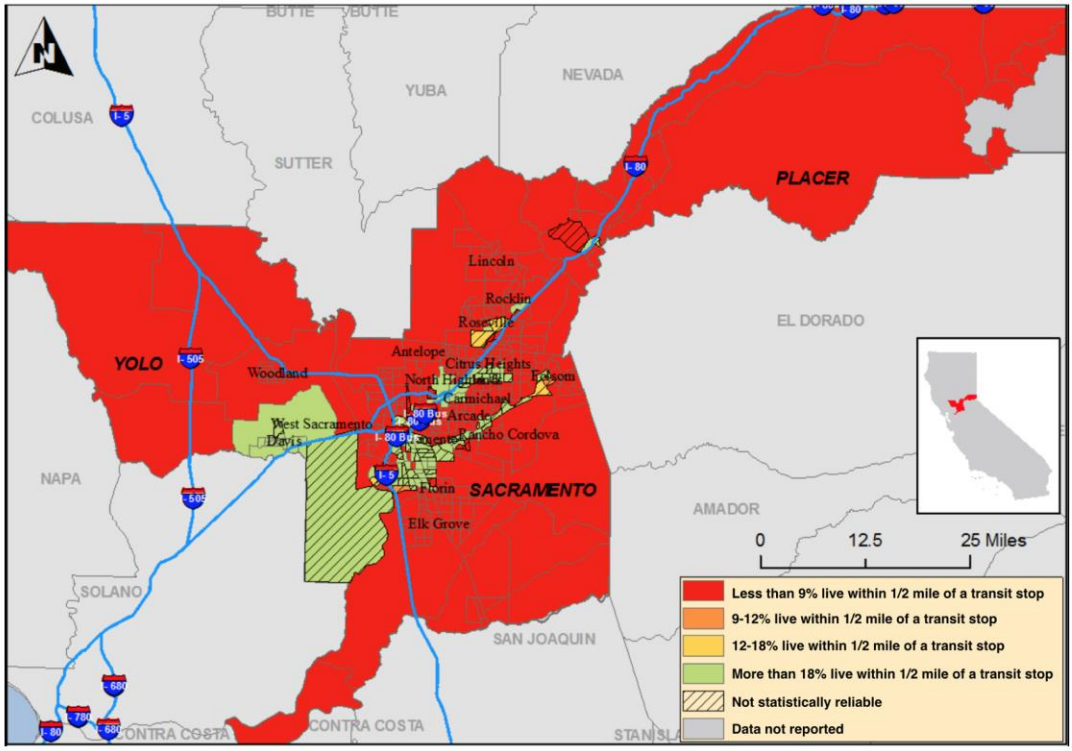
Table 6: Participation Rates for Pilot Wellness Programs and their Activities for State Employees in the Sacramento Region

2012-2013 Activity	Kaiser/CalPERS Agency/Department/Program					
	Pilot 1	Pilot 2	Pilot 3	Pilot 4	Pilot 5	Healthier U
Thrive Across America	19.5%	-	8.0%	5.0%	18%	31%
Mix It Up	9.6%	4.9%	-	-	26%	-
Onsite health screenings	15.2%	2.5%	8.6%	8.3%	-	48%
Onsite health promotion classes	19.8%	11.7%	7.7%	6.2%	9%	-
Total Health Assessment (THA)	8.1%	2.9%	2.9%	1.1%*	2.2%*	16.8%

Source: CalHR / *Healthier U* Pilot

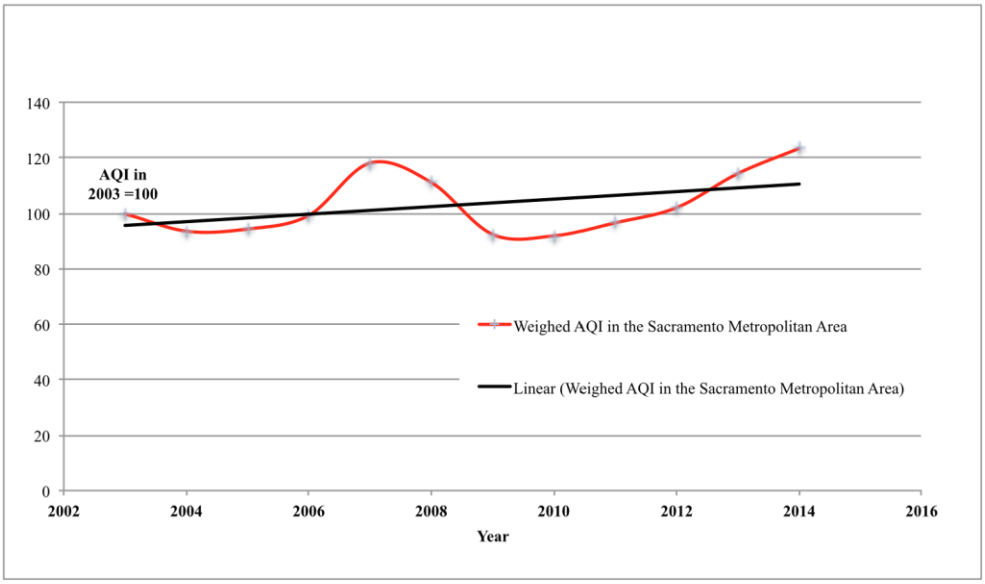
^Participation rates based on all employees, except *, which denotes that the program was open to Kaiser Permanente subscribers only

Figure 7: Access within Half a Mile of a Public Transit Stop



Source: *Public Transit Access,* Healthy Communities Data and Indicators Project, 2012

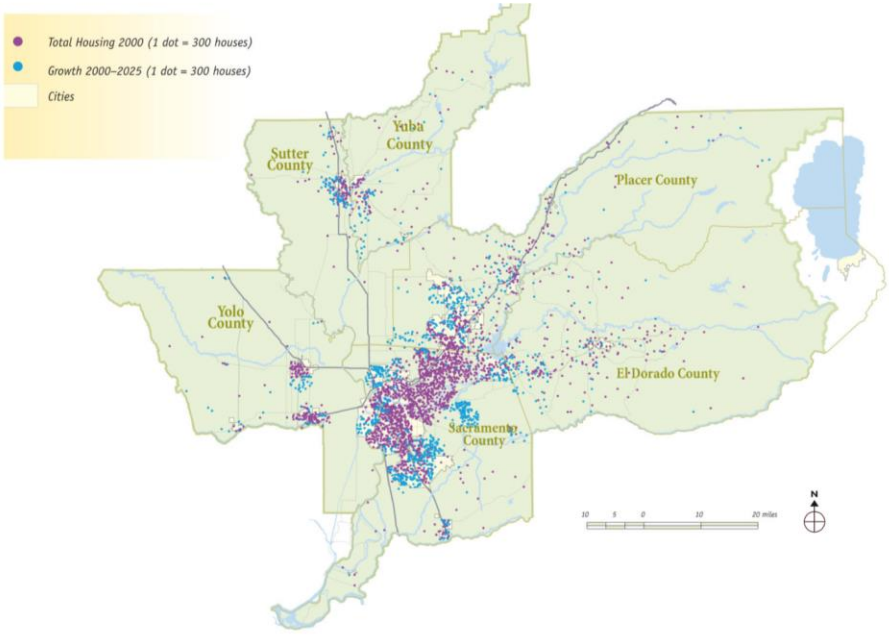
Figure 8: Air Quality Index in the Sacramento Metropolitan Area



Source: *Spare the Air*, Air Quality Information for the Sacramento Region

The Air Quality Index (AQI) is an indicator showing the level of air pollution. The higher the value of AQI, the greater the level of air pollution. The weighted AQI is calculated by counting the number of days by the five categories of AQI: "Good", "Moderate", "Unhealthy for Sensitive Groups", "Unhealthy" and "Very Unhealthy", weighted by 1 to 5 respectively. The data are expressed as relative values, with the year of 2003 positioned as 100 percent.

Figure 9: Sacramento State Employee Residence Map



Source: Sacramento Region State Office Planning Guide, 2008

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